



charrette : a high performance vehicle for learning in the design studio
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When announced at the beginning of a studio session, a charrette often elicits groans from students and some pondering about the tasks that may lie ahead in the short period of intense work articulated in the parameters of the design exercise. When bundled together, a series of charrettes serves well students in providing space for them to articulate visions for their work in various levels of design studio. In beginning studio classes, the charrette teaches as much about process as product and permits students to learn about the values and some of the tribulations of collective enterprise. In upper-level studios, the charrette reminds of the importance of collective enterprise on two levels: first as a prompt to borrow on charrette – and studio lessons – of the foundation years and second as evidence that the entire studio works toward a common deadline in order to move a group or individual projects forward. In light of an often linear design process, charrettes remind students to consider all aspects and levels of design, especially the material manifestation of their ideas.

Said to originate from the nineteenth-century custom at the École des Beaux Arts, proctors circulated a cart, or “charrette”, to collect final drawings while students frantically put finishing touches on their work. We take the idea of

the charrette also from the traditions of the Bauhaus where short design exercises resulted in tangible deliverables crafted from the work benches, visualized in the artist studios, and envisioned on the drawing tables of that venerable institution. In more recent application, the charrette has taken on new life in the civic realm as neighborhood groups and the government employ the fundamental aspects of the design process to assess and address complex community issues. By any measure, the presence of charrettes in the current design education curriculum follow a simple rubric to identify issues, assess information, envision strategic options, divide responsibilities, produce coherent deliverables, operate within a tight schedule, and cohesively present work. The studio charrette simulates real world experiences where tangible deadlines set strong parameters for completion of work. Moreover, as much of the design world relies on teamwork, charrettes put students in the mode of thinking and making with their colleagues rather than rely on their solitary skills and life experiences to the exclusion of others.

the charrette context in iarc

Over the last several years, the authors have experimented collaboratively and independently to punctuate their design studios with charrettes, bringing this historic practice to the design studio of the present. According to senior faculty, charrettes had been used sporadically throughout the last couple of decades for special events or opportunities that faced the department. The use of these teaching moments in more recent years stemmed from necessity. In spring 2003, Lucas and fellow faculty member, Ericka Hedgcock, co-chairs of the department's speaker series focused on connections between interior architecture and various allied disciplines in design and art, invited Eva Maddox (Eva Maddox Associates, Inc.) to deliver the keynote address within the series. As preparation for her visit, and in fact at the core of some of her fundamental approaches to design, Lucas and Hedgecock shaped a charrette, **portal panel**, for students to use both environmental graphics and wayfinding to reshape the hallway space outside of studios and faculty offices. Maddox worked with the students to help them refine and articulate their work based on her design approaches and her decades in design practice. In turn, she utilized images of the work and the experience to talk about design in her speech within the speaker series the following day.

Working with brown cardboard as a medium, the charrette challenged students to abstract a period in design history and represent that with some kind of doorway/gateway experience married to a panel explaining their design intentions and the cogent lessons of history in the period they designed. The resultant experiences literally utilized the plethora of doorways on site and the students transformed the dreary interior hallway of the former chemistry laboratories into an expression more befitting a design program. At the beginning of the semester, the department had relocated to this temporary home awaiting the construction of the Gatewood Studio Arts Building. Thus the charrette made an obvious link to the speaker series but also allowed the

students in the program to make a home in the chemistry building, bringing their own brand of design to the circulation space at the core of their educational experience. Following **portal panel**, students and faculty alike noticed that the teamwork across the various studio levels brought a new energy and an opportunity for students to learn from one another. This charrette opened the pathway toward a collective understanding of design as a group enterprise.

Based on that success, interior architecture faculty began looking for additional ways to gather students across their design studios with one charrette spinning out in the fall semester 2003 which took place at the end of October. All studio projects came to a halt as students studied light as a medium within this educational experience. The **cornucopia of delight** charrette challenged students to create vessels of light, drawing on the characteristics and structure from a palette of vegetables to shape the light source of their choice. One additional requirement asked students to site their vegetable installation atop or adjacent to a canned food item. Again with the gloomy interior hallway in our borrowed space on campus, students successfully transformed the site into something more than a dingy passage...not to mention the olfactory bonus of converting the hallway from mysterious chemical smell to one shaped by roasting vegetables. The student chapter of the International Interior Design Association collected the cans at the conclusion of the day-long event and donated them to a local food bank, bolstering the organization's commitment to remind students of their collective responsibility as engaged citizens to care for those who do not have enough to eat. Again the charrette expanded the opportunities to understand students across studio sections and allowed upper level students to demonstrate leadership opportunities with their younger counterparts.

cornucopia of delight provided a sense of joy at working on something simple and collective. It enabled us all to see that design stems from the world around us and it enabled us to gain control of our near environment in our temporary space. It also led to the development by faculty of immersive experiences for all students across the program in the subsequent semesters.

Building on the successes of **portal panel** and **cornucopia of delight**, the interior architecture faculty established week-long short courses in various aspects of design in the spring semester 2004. These **[s]courses**, charrettes lasting one week in duration, enabled students to select from a wide array of topics as a supplement to their home studio. Again working across the studio years, faculty and graduate students sought intensive experiences in a wide variety of subject areas including investigations into colored pencil rendering techniques, advanced *Photoshop* and *Form-Z* explorations, a look at cinema and architecture, practice at photography, environmental graphic manipulations, a full-scale art installation at a location in downtown Greensboro, a foray into the connections between music and architecture, and more theoretical explorations of the environment in seminars on design practice and theory. Department faculty and graduate students led each group during assigned studio hours, simply substituting the specific **[s]course** topic for their regular studio time. Students selected from among the topics and combined into groups for the week, with assessments of their work originating with the **[s]course** leader and

reported back to their home studio instructor. The **[s]course** activities certainly enlivened the immediate design context of students in the program but faculty soon realized that the additional work required to maintain the energy for a separate short course might not have the greatest return in future semesters, punctuated by a FIDER accreditation visit and numerous other departmental activities. But rather than serve as the end for charrette experiences across the department, individual faculty began embedding charrettes within their own studios with great benefit.

In the fall semester 2004, Lucas situated three charrettes within the structure of his studio on investigations of time and the practice of design **[of clocks and clouds]**. Used as both a warm-up exercise and a group-gathering end for the studio, students encountered the opportunity to describe the sound a clock makes in model and in drawing in the charrette, **sounds like...**, which they then used this as a starting point to design a chronometer. At the conclusion of two weeks work and in part as critique of the woefully inadequate clock tower just erected on our campus, students explored the fabrication of a system of clocks, bringing their individual projects together in the **like clockwork** charrette. One final planned charrette for this studio, **had we but world enough and time**, gave students a short time frame to jump start their second project for the semester by bringing it into focus in three models to explain materials, light, color and three 8-1/2x11" explanation sheets to explain their approaches. Students pinned up this work and discussed it as a way to start into the design for a factory for the manufacturing of umbrellas. The students themselves, in evaluating the power of the charrette to move forward their projects asked that additional opportunities be opened during the course of the semester for short exercises that cogently created deadlines and expectations for various aspects of their projects. Several student-imposed charrettes thus marked the remainder of the studio, including a day-long charrette outside of class time to shape the final installation of the time studio during the department's review week. This charrette on **presentation** led directly to the implementation of a similar charrette within the summer thesis studio a few months later, taught by Lucas.

His work in the fall studio led to a blossoming approach to charrettes in a second-year studio in the spring semester 2005 where Lucas and two graduate students led a studio with 72 participants through three projects liberally sprinkled with charrettes. In this instance, the charrettes became a method to manage large numbers of students and to keep them moving in ever-changing teams as they worked largely in a collective to design a small live-work space, to investigate the close proxemics of a hair salon, and to take their live-work space and situate it alongside their classmates in the development of a hypothetical residential apartment tower in downtown Greensboro. In **kit of parts**, students worked in support groups with charrette deliverables at the conclusion of each of the six studio days over the course of two weeks to create a live-work space with either two walls and a column, two columns and a wall, or two volumes. In **rejuvenate**, the hair salon project, third year students serving as mentors for teams of second year students, measured and documented a nearby hair salon and redesigned its interior. The week-long **workstation** charrette, a critical part

of this project, afforded students the chance to holistically design a single hair-cutting station, asking them to detail and model that station within the project, bringing the lessons of that workstation to bear on the larger interior.

Charrettes essentially provided the framework and the daily operating procedure for the third and final project, **jenga**, with new charrettes generated nearly every class session to bring individuals and student groups through the complex design process to connect their work with one another. In **jenga 1.0**, for example, students worked in teams of two to design a public space that joined their own live-work units from the kit of parts project. Building sequentially, **jenga 2.0** brought four teams of two together to make a two story building from the resulting **jenga 1.0** projects and **jenga 2.1** called for the groups of eight to double the height of the structure to four floors. Taking into consideration the building systems and materials information students were learning in a companion support course, the **jenga 3.0** charrette combined the teams into a body of sixteen designers and a doubling in height to eight stories on an actual site. The charrettes for **jenga 3.1**, **jenga 3.2**, and **jenga 3.3** asked students to focus inwardly and outwardly on the eight-story design manifested to date, detailing specific public and private spaces within their team's project. The final charrette for the course, **jenga 4.0**, suggested that "the final week in this project is an opportunity for you each to demonstrate your mastery of both individual parts and the collective whole" in a design challenge for two teams, each representing half the class, to bring a final building forward for consideration at departmental reviews.

The charrette sheet reminded students that "the project is as much about how an individual unit informs the entire building (and its segments) as the project is about how the entire building affects both the segments, the individual units, and the context. Keep in mind that, as a class, you have two buildings that should relate in some way to one another." The results at the final review exceeded all expectations as the students collaboratively and creatively created designs that investigated unit-to-unit, floor-to-floor, section-to-section, building-to-building, and building-to-city connections. Utilizing new found skills in *Form-Z* (students developed these simultaneously in a graphics course focusing on digital rendering) unveiled his highly detailed fly-through, much to the astonishment of the department's faculty and his own classmates. Charrettes, in this instance, provided not only the structure for the entire studio course, they enabled students working in groups to a greater collective enterprise than would have been possible in a more traditionally-managed studio. Because of the high numbers of students and the added challenge of second year as the conclusion of the foundation experience in the program, charrettes formed a critical teaching strategy that transformed the world of design for this particular peer group within the program. The fun – and learning – was not to stop there.

At a philosophical breakfast to plan the summer thesis studio experience in 2005, Lucas and Charest directly took up the notion of charrette as a specific teaching approach and pondered its use to move along the work of seniors who undertook an intensive eight-week, all-day-long studio to complete their undergraduate studies. What worked for second year might indeed transform the

thesis studio. Imbedded within the studio, the faculty holistically revised the summer studio syllabus marked by five charrettes as measurable steps along the design process. These five experiences include an **esquisse** charrette as a point of departure, a **materials** charrette early on in the design process, a **perspective** charrette to bring to light design approaches, a **presentation** charrette to plan early the form and number of project deliverables, and a **detail** charrette to fully flesh one aspect of the students project. This holistic approach provided bench marks as reminders for students to continue moving forward with design and production work. Students benefited as well from “enforced” decision-making with real deadlines and consequences for meeting, exceeding, or failing at them. In the end, after this introduction of charrettes into the thesis studio setting, both the quantity and quality of work rose, and the students produced resulting projects the more completely and comprehensively addressed many facets of design than had been the case in previous years.

As Charest and Lucas co-taught second year studio the following fall semester 2005 and again taught together in the spring semester 2007, they cemented charrettes within a teaching strategy to enliven the second year studio, bringing individual and group work within the charrette system. During both semesters, Lucas and Charest were capably assisted with a highly talented upper-level undergraduate student, Jennifer Yancey, who had experienced the charrette process in Lucas’ **of clocks and clouds** studio ably assisted Lucas and Charest, applying those student experiences as new charrette opportunities imbued the second year experience. In both semesters, students designed similar dormitory projects as their main efforts, with a strong architectural framework designed by Charest in 2005 and the adaptive re-use of a warehouse structure in 2007. For both second-year studio semesters, two-week-long charrettes shaped ice breaker projects, a farmer’s market fruit stand in 2005, building on the notion of sustainable design (the studio entitled **outside : in** provided investigations to consider the impact of the world on the design of interiors), and a team charrette to design a maximum square foot house followed by an individual exploration of a “minimum” structure by individuals in the 2007 studio (the theme of the studio **maximum : minimum**) before leaping into the dorm project. Borrowing on the collective experience of the senior thesis studio, Lucas, Charest, and Yancey shaped charrettes when studio sessions aligned with holidays in 2007: a charrette on **intent** on Lincoln’s Birthday (12 February), a charrette on **order** (Valentine’s Day, 14 February), the “no particular holiday” charrette to explore **enrichment** (16 February); the President’s Day charrette on **expression** (19 February) and the St. Patrick’s Day charrette to investigate **resolution** (17 March). Again meeting with success, the charrettes enlivened the design conversations, increased production in the studio, and resulted in tangible physical evidence of designers hard at work.

Charest and Lucas not only use charrettes when they team teach, they also now draw on the timed design exercise with increasing frequency across studio years and types. Charest credits charrettes with shaping the planning phases within the department’s **urban studio 01**, a design-build project for upper-level students of a residential structure for an elderly couple in the

Glenwood neighborhood adjacent to the campus, and the beginning work for the current **urban studio o2** project : **my sister's house**, a home for pregnant teenage mothers in Greensboro to be built over the coming year in a collaborative with the department, several university units, the YWCA, the local government's department of housing and community development and several institutional partners at Guilford Community Technical College. Similarly, Lucas assigned charrettes as a major component within an exhibit design-build studio, **close to home**, to explore the impact of Modernism on Greensboro in the work of architect Edward Loewenstein who practiced in the community between 1946 and 1970. In all of these cases, the charrette provides a high performance vehicle not only for the design studio but in reaching to the community beyond. By involving students and community partners, the charrette brings to the fore salient issues and circumstances for examination by all in a short time span, successfully bringing together the collective energy such focused sessions provide.

Not only have Charest and Lucas utilized charrettes to success in the thesis studio collaboratively, Lucas has also deployed charrettes in teaching the department's graduate studio in fall semester 2006. Moving from the isolated instance of the compressed summer thesis studio, the successful use of charrettes has now become a teaching strategy adopted by subsequent teachers of both thesis and graduate studios during the last two fall semesters under the leadership of Novem Mason, Tina Sarawgi, and Jo Leimenstoll. The rubric established by Lucas and Charest has been modified and adapted by each of these three teachers with all acknowledging the value of charrettes in providing measurable, tangible moments of clarity within the studio experience. In bringing charrettes to their studios, the faculty have illuminated a path to holistic design approaches with resultant stronger work. Thus, while the charrettes started as whole program opportunities, Lucas and Charest experimented with the outcomes of various studios, re-conceptualized the thesis studio with charrettes, adapted with great success a charrette approach for second year studio to manage large numbers of students, and utilized charrettes in their own work to enliven and enrich design opportunities at the university and beyond. In coming full circle, the program-wide charrette experienced a rebirth this current spring semester 2008 with the department's adoption of the theory hour, where students from all studios gather in one room to work, at least partially, *en charrette* in exploring the four core values of the department: community, stewardship, innovation, and authenticity.

the value of charrettes

One of the greatest benefits of the charrette is that the tight deadlines and parameters necessitate thinking and acting quickly. We hear all the time that one of the qualities that distinguishes our students from other undergraduates is their ability to move rapidly toward and through design processes. The charrette allows us to test students in a variety of situations, from individual to group, in ways one can only know by doing. Because the charrettes often require

significant materials to be generated in a short period of time, students gain excellent experience in testing the limits of their skills and abilities. We believe that charrettes actually parallel “real world” assignments. They are unexpected, they provide for a defined series of deliverables, and they require a compression in time to accomplish the tasks assigned. Through the charrette, then, students learn valuable design strategies and approaches useful through a lifetime of practice.

Beyond their applicability in the world after school, we find that the charrette provides an illustrated brainstorm that represents a coalescence of ideas and a place to start. Students often attempt to hang back in sharing their design ideas with each other and with instructors in the studio. The charrette helps to overcome this challenge in that students fashion deliverables that look both at strategies/approaches/theories and to manifest forms, details, material selections, and lighting effects to support the more theoretical explorations. Design can then become a discussion around the set of artifacts generated rather than an attempted discussion that involves the instructor struggling to see the design process in each student’s head and/or attempting to decipher the hand gestures that seem to accompany conversations when no artifacts exist to discuss. By asking students to engage in design charrettes, instructors require deliverable artifacts that aid the conversations and possibilities of design from their departure point.

Charrettes prescribed within the auspices of the program have at least some group component inherent within their scope or structure. Because we believe so strongly that design is not a solitary practice but rather one that community feeds, this aspect of the charrette project should not go unmentioned. Not only does the process help students with decision making, by the very act that all students in a given studio undertake the same charrette and in the end show that the same assignment can be interpreted a multiplicity of ways. Thus no one “right” answer eclipses all the possible opportunities. Moreover, as most assigned charrettes indicate group experience, students have to work with one another to accomplish the intent of the exercise. As the deliverables far outweigh the time allotted, it behooves student groups working together to divide and conquer the list of requirements to be successful in timely delivery – an emulation of the world of work and a demonstration of the integrated nature of successful design intervention.

The charrette system is not without a drawback from the student perspective. When a student takes either of the authors’ studios or, in fact, find themselves in a studio co-taught by the two authors, she unquestionably knows that several charrettes will shape the experience. In reaction, the student often dreads the assignments that punctuate the semester, suggesting that they have to expend needless energy working on “your charrette” instead of “my project.” The response to the criticism of pulling energy from the actual project is a matter for cogent discussion for students to understand the intent of each charrette as it pertains to their own work. Well-crafted charrettes expand and make possible a better comprehension of a project; a clear calendar and a positive attitude about

work in this rapid-fire approach go a long way toward ameliorating the concerns. In the end, the benefits far outweigh this student concern.

a few of our favorite charrettes

Our gregarious approach to charrettes has generated some really terrific design ideas. Some of our most successful assignment titles include:

portal panel charrette	design exploration with 2D graphics and 3D form
cornucopia of [de] light charrette	carving light from vegetables
get on the floor charrette	flooring system exploration
a leg to stand on charrette	foundation system exploration
piece of cake charrette	sustainability exploration: longevity vs. extreme organicity
1 + 1 + 1 > 3 charrette	summarizing work to date
get your back up off the wall charrette	wall system exploration
raising the roof charrette	roof system exploration
seeing a single brick in the wall charrette	tectonic model of project
it's all in the folding in of ingredients... charrette	a snapshot from phase two to three (design development)
"check it out" charrette	precedent study on libraries
complementary + analogous + tertiary charrette	study of color in space
best of intentions just wont cut it what have you done for us lately? charrette	snapshot of the project underway
sensory charrette	fantasy space ideas
"three's a good number" charrette	bringing information from three project areas to bear on the project of the whole
traveling towards the measurable charrette	making a group project from

	individual work
sounds like charrette	models + drawings to explain what a space sounds like
like clockwork charrette	model + drawings to bring individual projects into a system
hyphen charrette	transition from full-scale project to details
a trace of markers, Dr. Watson? charrette	marker rendering exercise
drop dead fred 1- point perspective charrette	drop-line perspective assignment
round and round she goes, where she stops – nobody knows! charrette	draw a rotating object from the side you can see
spacing out in an off 1-point perspective charrette	perspective drawing exercise
are two points really better than one? charrette	transition from one point to two point perspective
mapping silence + tracing shadows charrette	gridded photo-realistic drawing
the thing with rubik's cube charrette	hand rendering exercise on materials taking into account the perspective on a cube
45-degrees? that's so 1985! charrette	perspective construction using 45 degree to gain perspective depth
is it a charette or a char[r]ette?* either way, drawing ain't no crime... charrette <small>*a char[r]ette by any spelling is the same amount of work</small>	model + section development
la gestuelle charrette	seven schematic gestures
the good, the bad, the ugly charrette	incorporate pre-determined material choices into projects
mama said "don't forget to wash your hands" charrette	twenty drawings to trace the experience along a pathway from

“i’m too tired for another charette”
charette

outside of the building to inside
and through the building to the
bathroom
design development on materials,
light, and color

“i can’t believe there’s another charette”
charette

first steps at designing furniture
within the project